



Competency 1.12 Industrial hygiene personnel shall demonstrate a working level knowledge of the design of administrative measures to control exposure.

1. Supporting Knowledge and Skills

- a. Discuss how the following measures contribute to effective exposure control:
 - Applicability of medical monitoring to exposure
 - Medical removal protection for sensitive workers
 - Genetic screening
 - Need for medical controls (physical examination, diagnostic testing, etc.)
- b. Describe how application of the following administrative measures affect exposure control:
 - Procedural modifications (work practices)
 - Operations and scheduling
 - Standard operating procedures
 - Development of rules, standards, and procedures
- c. Describe an acceptable application of the following administrative measures used to control exposure:
 - Reduction of exposure time
 - Control of ionizing and non-ionizing radiation
 - Work/rest regimen for heat stress control
- d. Discuss how the following relate to the administrative control of exposure:
 - Personal hygiene practices
 - Promoting and implementing good housekeeping practices
 - Behavioral characteristics of workers and their influence on job assignments



2. Recommended Reading

Review

- *Fundamentals of Industrial Hygiene*, 3rd Edition, Chapter 20, “Methods of Control,” National Safety Council.
- Patty’s *Industrial Hygiene and Toxicology*, Volume IIIA, 2nd Edition, Chapter 5, “Health Surveillance Program in Industry.”

3. Summary

Administrative controls is a general term for written procedures and practices used to limit employee exposure.

Administrative controls limit exposure by preventing or limiting employee proximity to the agent, or the duration of exposure to the agent, through written procedures or practices. Administrative controls may be used by themselves or to supplement other controls that alone are not adequate. Effective administrative controls rely upon a thorough understanding of process variables, and the training and education of personnel in the procedures that ensure the control, and require an especially high level of continuing surveillance of workplace operations. Unlike other controls, the direct costs of administrative controls e.g., design, constructions, materials are generally small. However, because administrative controls require the modification of employee behavior and procedures, operations, personnel, and other indirect costs may be quite high and long lasting.

An administrative control may include the medical certification of employees prior to assignment to jobs where exposure to significant specific risks is anticipated. Where employees demonstrate a medical condition that would make them vulnerable to these specific risks, the employee may be disqualified from assignment to the position. Continued medical surveillance will also be implemented in order to detect the first signs of damage from exposure to the risks, or change in the employee’s medical condition, with removal from the position for medical reasons being a control available.

Medical certification requirements should be identified in the formal description of these positions. Temporary medical restrictions are another medical administrative control that should be in use.



An administrative control might also include limiting the duration of employee exposure. This may be done either by a process change that limits the duration of the operation exposing the employee to the typical hazardous agent, or by limiting individual employee participation in a specified portion of an operation. Exposing more employees to keep the individual exposures within permissible limits is considered a poor substitute for reducing the total employee exposure. Exposure to agents that act most significantly through acute exposure, such as heat, may be limited through the implementation of continuing work-rest cycles so that exposure is intermittent and employees can recover between work periods.

An administrative control might also limit exposure to an operation by controlling the unit of material consumed, handled, or generated, irrespective of duration of the operation, when sampling demonstrates that this correlation can be made between exposure and unit activity.

Where there may be significant exposure to an agent left as waste or debris from past operations, housekeeping procedures such as removal by vacuuming and wet-wiping, and the collection and disposal of contaminated materials and used containers, may also be considered administrative controls. When loose contamination is present and inadvertent exposure by ingestion may be possible, personal hygiene practices that require employees to clean their hands prior to eating, and forbidding eating, drinking, or smoking in contaminated areas, might also be considered administrative controls.

4. Suggested Exercises

Please refer to Scenarios 2 and 6 in the Scenario section of this document.